

ACC-4000 Release Notes • Release V6.2

The ACC-4000 V6.2 release is a major enhancement for the ACC-4000 Controller. The additions, enhancements, bug-fixes, and known bugs in this release are described in this document.

Operating System and Software

The operating system and software applications have been upgraded as follows:

- UNIX operating system (version 4.0)
- SYBASE (version 4.2)
- ACCELL (version 2.2A).

All three are united to correct the database and user interface obstacles, including performance issues, recognized in previous releases.

Documentation

V6.2 is accompanied by a revised documentation set that includes these materials:

- *Volume I: Overview of the ACC-4000 System*
- *Volume II: ACC-4000 System User Guide*
- *Volume III: System Administrator Reference Guide.*
- *Message Manager User Guide*
- *Message Editor System User Guide*
- *Character-Based Interface Quick Reference Card*

If you did not receive all of these manuals, contact your General Instrument representative immediately.

Additions

The following features have been added to the ACC-4000:

Utility Access

Data base optimization is an option under the File Operations Menu.

The DST (daylight savings task) is an option under the Control System Options Menu.

Wire Link

Wire link supports output channel 3 for international converters.

A new wire link monitor, accessed through a 132-size window, allows “tailing” the wltrans file for viewing when you dial in. WLMTR performs the tail on the wltrans file, which continues to update. The new monitor includes options that allow you to direct activity to a file, and options that are for internal use by software developers only.

Tasks

A new TASKDEF and JOBDEF are included in the system. Added: MSGMGR, PSWAIT.
Removed: PHMGR – now handled by line [304] in config.dat.

Hardware

A third hard drive is required for the 433T. The 433T files have moved around as a result.

Message Management

Message Management software replaces the OSD task and utilities. Please refer to your *Message Manager User Guide* for additional information.

You have been supplied with a diskette containing the Message Editor, which replaces OSD edit. The Message Editor must be installed on a separate PC, under Microsoft Windows. See the *Message Editor System User Guide* for operating instructions.

Editor

EDT is no longer used to edit files. An Emacs editor is now shipped with the system. Emacs is invoked automatically when you access the configuration files through the user interface screens.

Diagnostics

A new program, u386mon, is added for General Instrument (GI) internal diagnostic purposes. This utility is used by GI field service engineers, software engineers, and TRC engineers when appropriate.

Enhancements

The following enhancements have been made:

Backups

Database backups can be scheduled daily instead of five days a week. The field service engineer can edit cron_acc file in /usr/acc4000/data to individually configure the daily backup schedule.

Channel Maps

The number of channel maps included in the Channel Cross Reference Map report (accessed through the Print Channel Map List option) is increased to 50.

Database

The subscriber table is no longer pre-allocated. The benefits of a non-pre-allocated database are:

- Database integrity checks are much faster for smaller systems.
- Database backups are much faster for smaller systems.
- Since few systems have greater than 256k subscribers, the space saved by not pre-allocating is not wasted and can be used for messages or other files.

The DBTEST prompt now says, "Do you want to display full menu?"

When login is run at reboot, it invokes a script called `check_suspect` to inform the operator at startup if the database is marked suspect. An error window is displayed and informs the operator what to do (for example, call General Instrument).

DBOPTIMIZE now includes the purchase table within its optimization process.

DBOPTIMIZE is no longer available when doing the system backup. There are also two new options at the bottom of the screen:

- Database Allocation - goes through all the tables in the application database and verifies that the data is pointed to the correct indexes.
- Database Integrity - goes through all internal SYBASE links and pointers and checks to see if they are correct.

We recommend that you run both options monthly and that you take down the wire link during any optimization procedure. When an optimization and another application, such as the wire link, attempt to access the same record at the same time, the record can become corrupt.

Database Utilities

The `dbquick.dat` data files are saved at startup and reboot.

DBPEVENTS now resides in the `/usr/acc4000/tasks` directory.

Errors and Messages

Error logging (the `buwarning` window, for example) is added for some utilities. This increases the chances of the operator realizing that an error in a utility has occurred.

Lists

We now send out event lists before subscription lists. The new cycle is CONNECT, EVENT, TCB, SUBSCRIPTIONS, and DCR.

Message Manager

MSGMGR required that additions or changes be made to the `wlconfig` and `config` files. These additions are documented in the appendix of the *Message Manager User Guide*.

Pay Services

PSL now checks to see if the maximum number of pay service adds are reached. When they are, an error message is logged to the Logger window. When you see this message, verify that the events for that day and the following day have loaded correctly. If they haven't loaded correctly, contact a TRC engineer at 1-800-537-7653 to see if changes to your system configuration should be made.

PPVMGR now takes less than a second instead of 3 seconds to process any wire link 294 command, regardless of the number of entries.

PSL no longer performs auto deletes one hour after wake-up time.

PSL tests for service codes greater than 256.

PSL deletes are now 20 times faster. Instead of deleting on a single subscriber basis, it now deletes on a multiple subscriber basis.

The Clear Box script (clear purchases) occurs once a week on Thursdays, after the database backup has completed successfully. If you need to run the script at a different time, a field service engineer can configure this parameter by editing the `cron_acc` file in `/usr/acc4000/data`.

Deleting packages is more user friendly. The delete message now clearly states what the user is deleting.

Rebooting

Upon rebooting your system you are asked why you are rebooting. This information is placed in a file for future reference.

All temporary files created by utilities are removed upon reboot, thereby conserving disk space.

Reports

Some reports are increased in width size to 132 columns for readability.

Scramblers

An option is added to allow you to list all your scrambler addresses that are in automatic control. To use it, type READPS DSE at the % prompt in a 132-size window.

Service Codes (Tags)

One-way converters can now be authorized for "T" type (two-way) tag events. This way the system can still use "T" type tags and at the same time authorize one-ways for this "T" type event. This is a one-punch deal. "T" types are still not supported in lists.

System Operations

The number of pipes are increased to 330. This allows the controller to enable up to eight screens, five wire links, and leaves enough room for future enhancements.

All ACCCELL debug files are removed from disk when the screen is taken down by the operator. This conserves disk space. The debug file still remains if the screen comes down unnaturally. This is necessary for software trouble shooting.

There is a rename task supplied in the software, in /usr/acc4000/scripts, for multiple controller sites. It is called acc_rename. This script should only be used by General Instrument personnel.

The POLL task has been modified to read the number of punches between poll packets from the configuration file.

Upgrade Procedure

The upgrade procedure for this release is modified to automatically kick off the data directory backups and restores that are needed during the upgrade.

The upgrade procedure now includes a script for cleaning the disk, shutting down the server and copying only connected subscriber records, and then reboots.

User Interface

The screen exit password is "chow" or "bye."

The user interface checks to see if the wire link and Message Manager are running before enabling the buttons and function keys that provide access to these screens.

The "Data collection complete" message appears on the monitor only while you are in the Range Data Collection screen. Previously, this message would display over any user interface screen currently on the monitor.

The Range Operations screen in character mode supports Ctrl + Z to cancel an operation.

SCRCHK task now checks for orphaned and single parent screen tasks and NEWAMGRs. Upon finding a process without its parent or child, it kills the process and cleans up the user interface shared memory region so you don't run out of available screen slots. The SCRCHK task also logs to the Logger window that it has killed a single process.

The Non-responding Converter reports now display the full amplifier field.

Support for sorting by amplifier is included in Non-responding and Non-participating Converter reports.

Wire Link

The software now supports five wire links instead of three through the user interface screens.

Pipes are added to support the wire link download of PSL files.

The wire link configuration file xon/off parameter is changed to default to F (not used). Valid parameters are T and F.

Bug Fixes

Backups

Multiple warning windows appeared or no warning windows appeared when backups were not completed properly or there was an error. This has been fixed.

Channel Maps

You now have an option in the user interface to "UNASSIGN" a channel map from a particular type. Problems were occurring in the field where the channel map for a system was incorrectly "typed" after the upgrade was performed. You can now safely "retype" this channel map through the screens available in the Converter Type option on the Main Menu of Screen Options.

Database

A wire link command change with initialization was leaving the initialized field in the database set to true on a two-way converter that failed to respond. This has been corrected.

Database Utilities

Operator prompts in some of the database utilities have been corrected.

DBQUICK now executes option 5 (run) properly.

DBSELECT correctly prompts for a unique converter status (option 19, unique converter status).

DBSORTPS can run off a timer called dbsort.tim (daily, for example). If you save the sequences, dbsort.tim sets up the cron for you based on DBSORTPS input. New options are added to detect gaps in pay-per-view scheduling.

DBSORTPS processes B cable schedules.

Emergency Alert

Emergency alert bits are now set correctly from the Send Global Punches Menu.

Errors and Messages

The message from the PPVMGR stating "failed to find service code" has been changed to "failed to find service number".

The number of communication semaphores used by the user interface and other tasks was increased. Therefore, the "lssemget" errors that displayed in the Logger window while you tried to access channel maps or perform converter operations no longer appear.

Mapload

The new versions of SYBASE and ACCELL work together to alleviate the transaction file full problem in previous releases. The old SYBASE was a contributing factor to the Mapload and Headend Manager "hang" which are believed to be fixed in 6.2. A message now appears in the Logger window or Headend Manager when Mapload recovers from a hang. This message indicates that the task was automatically restarted.

Mapload had a bug where it would not send authorizations for subscribers on boundaries between all partitions. This has been corrected.

Pay Services

Adding a new package component no longer creates an error message.

PPV authorizations are no longer allowed on disconnected (non-existing) subscribers.

PSL can now successfully delete package components.

Reports

The reports accessed from the Pay Service Reports Menu now print correctly. The price fields were not aligned properly.

The Chronic Non-responding Converter reports can now match on converter status.

Minor fixes were made in order to align columns in the database utilities reports.

Scramblers

The DSE hang in dmpdse is now fixed. It no longer hangs after you read scrambler queues and then try to change the record.

System Operations

When logging to an off-line printer, the system would lock up. This has been corrected.

The SETLEVEL interface supports all three program options:

- Print each ID processed
- Print ID of responding converters
- Print summary results (default option)

Operating system parameters have been corrected to prevent the “no more processes” error.

User Interface

The user interface and the wire link were clashing while trying to access the database at the same time. This was causing deadlock errors from the user interface, and sometimes the wire link would hang. This has been fixed.

The user interface no longer disappears following multiple, single STARFONE operations.

When using the Modify Pay Services and Modify Packages screens, the user interface generated a "9018" error on an update, find, insert, or delete. This has been corrected.

Using the abbreviated, pull-down menu in the GUI interface to get to the Control System Options Menu yielded an error. This has been corrected.

Deleting class names and operators was causing error messages in the user interface. This has been corrected.

When performing RF and STARFONE operations, the user interface was reporting a problem when a timer function was being deleted. This has been corrected.

When changing the Output Freq-Map field in the Default Converter Information screen, the wrong value was being set for international converters through the wire link. This has been corrected.

The software version number is now properly displayed on the user interface Login screen.

The System Shutdown option from the user interface now works properly.

The user interface Single Converter Operations screen now supports changing the account number in a converter record.

Wire Link

The wire link would time-out and not respond when an automatic non-responding poll was taking place. The wire link would request a read purchase and would time-out from the poll, leaving an outstanding pipe. This has been corrected.

Wire link 330 commands no longer give an error. We ignore a response of status 0 from the host.

The wire link can now successfully add converters to partition 16.

Known Bugs

These are the known bugs in the V6.2 release:

The wire link logging window disappears if you turn off "brief" and "brief/brief" from the Business System Gateway Log Options screen. You must change the wire link configuration file and reboot; then change the configuration file back and reboot again.

A system restore can no longer be done through the user interface; however, the option to assign that privilege still remains in the screens you can access from the User/Class Menu.

Addendum • ACC-4000 Release Notes V6.2

Errata

Replace line 22 on page 2 of the ACC-4000 Release Notes Release V6.2 that begins with “Database backups can be scheduled” with the following:

Data base backups are scheduled daily instead of five days a week. The field service engineer should edit cron_acc file in /usr/acc4000/data to individually configure the system daily backups if this is not appropriate.

Additions

The following features have been added to the ACC-4000.

Quality Control

Quality Control (QC) permits the initialization of a range of converters, the range itself being determined by the user through the Quality Control ID range in the configuration file (/usr/acc4000/data/config.dat). The reserved IDs are termed the work-space and are not intended for permanent assignment to converters. The pre-defined IDs appear sequentially for each converter. Work-space converter IDs remain in the QC file until the operator deletes them.

A list of converter entries can be built using the QC screen. The list remains in the database until it is deleted by the operator. It consists of the converter ID, converter serial number and converter type. The converters in the list can be initialized with the default converter data parameters, cleared and then deleted. Bulk quantities of converters can thereby be tested by QC.

The list itself may be added to at any time by pressing the ADD button. An existing list will be displayed when the screen is entered and prompting will begin when an option is selected. When re-entering the screen, the display automatically shows the number of entries in the list as well as all entries that will fit in the scrolling region.

The list itself may be added to at any time by pressing the ADD button. An existing list will be displayed when the screen is entered and prompting will begin when an option is selected. When re-entering the screen, the display automatically shows the number of entries in the list as well as all entries that will fit in the scrolling region.

Screen Operation

Upon initial entry the current list will be displayed if one exists, along with the entry count. The operator must then choose an option. If no list exists, an entry count of zero is shown and the user must create a list. The cursor is then placed in the converter type field which can be changed at this time. Any converter type can be used as long as it is of the downloadable type. The converter list can be comprised of many different converter types. All entries in the list may be changed while in this mode. Pressing the ACCEPT button will save this list.

Button/Function Key	Function
<i>NIT</i>	Initializes all the converters in the list. After each INIT, the screen displays a message signifying success or failure during the INIT punch.
<i>CLEAR</i>	Deletes all information from all the converters in the list.
<i>DELETE</i>	Deletes the entire converter list from the database. The operator is prompted with the normal delete procedure before the list is deleted.

When the QC list is initialized an update to the ANIC does not occur. Therefore, when the data stream "list" comes around it will deauthorize the converters added through the QC utility. Some systems are not satisfied with this and can get around it by adding bogus converters to their subscriber database in this QC converter range.

The QC option is not accessible to the operator until the configuration file has been modified to include a quality control range within the existing database range for this system.

Automatic Data Collection 2-way RF

Limited support of automatic data collection has been implemented. This feature employs the /usr/acc4000/scripts/autocoll script and must be set up by General Instrument Technical Support.

Utilities

A new utility program, DMPOSD, may be used to read the message headers from a two-way RF converter or scrambler/encoder.

Existing Software

The OSD Utility option has been removed from the User Interface but is still accessible from the system prompt. This utility is still functional in the new release of software as long as

you are not using the Message Management software. **Do not try to use both OSD Utility and Message Management.**

The contents of a Default In-Band Barker Map should not be modified once the map is created and scheduled. If any changes are necessary, the map must be cleared, deleted and re-added. **Only the start time and start date may be modified once an IBB map is scheduled.**

Enhancements

Message Manager (MSGMGR) and NEWBOX now correctly replace existing Channel IDs when broadcast periodically or during converter refresh..

Message Manager (MSGMGR) and NEWBOX now correctly clear Out-of-Band Barkers from converter memory.

Message Manager (MSGMGR) now correctly finds all of the scramblers assigned to the channel specified in an IBB Map.

NEWBOX now assigns the channel map number to OSD converters as the group number. This permits MSGMGR to broadcast Channel ID maps and Out-of-Band Barkers to converters using groups rather than temporary groups. To use this feature it is necessary to first refresh all of the OSD converters.

The dboptimize script when run will no longer clash with PSL or HEMGR. These tasks will automatically be blocked when dboptimize runs. The dboptimize script now checks the integrity and allocation of the master database along with the ACC-4000 database.

The clearbox script will no longer clear boxes if all of the purchases have not been archived.

Channel and Frequency maps will now be accessible for International CFT converters by entering their type in the Converter Type screen. NEWBOX no longer crashes when the Frequency map contains all eight entries.

BUWARNING has been removed and replaced with ACCWARNING. The operator should not see messages from BUWARNING.

A new script has been added called cron_check. This script is run automatically every day at 2:00PM. The script verifies that the cron_acc file is accurately activated in the crontab. If there is a discrepancy then the operator will be warned and asked to call General Instrument.

A new utility script has been added called udsinit. This utility is used to initialize a Motorola UDS 2400 modem for starfone converter data collections. This script can be run by typing

/usr/acc4000/scripts/udsinit at the UNIX prompt. Before starfone modems can be initialized the FEPMGR and CCT tasks associated with the starfone modems must be shut down. This requires the ACC-4000 to be rebooted when completed.. Do not proceed with this utility unless you are prepared to reboot.

Bug Fixes

DBSUMMARY and DBSELECT would stop processing when it found a record that was locked. This has been fixed.

The Quality Control Screen no longer requires the Quality Control range to be specific according to converter type and partition. i.e. Two way and starfone converters can be entered into Quality Control screens even though the Quality Control range has been selected in a one way partition. The Quality Control screen has been modified to automatically advance to the serial number field. This enables the operator to “wand” many serial numbers in at one time without going back to the keyboard to press the enter key.

The user interface screens would lock up with an Accell heap error. This has been fixed.

Occasionally, when trying to shut the system down the system would hang. This has been fixed.

The master database transaction log is now truncated during each backup. This prevents it from getting too large which could result in database problems.

The screen which displays all services to the screen now supports the 132 columns necessary to read the report more easily.

Channel IDs for channels greater than 193 may be interpreted by older model converters as a bad site code, therefore causing the converters to go to an E8 status. Channel ID maps are now created with IDs for channels 1-99 if the B cable is not enabled. Previously, IDs were created for channels 1-198.

Occasionally, during or after a successful database backup the system would report a false warning that the backup had been running for over 2 hours. This has been fixed.

The DBSELECT task was crashing in the install date option. This has been fixed.

The Wire Link 340 command was limiting the rowcount to 16 allowing the purchases upload to only run for 16 purchases. This has been fixed.

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